APPENDIX E

GLOSSARY, REFERENCES, AND ACRONYMS

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GLOSSARY

ADMINISTRATIVE CONTROLS. Provisions relating to organization and management, procedures, recordkeeping, assessment, and reporting necessary to ensure safe operation of a facility. With respect to nuclear facilities ADMINISTRATIVE CONTROLS mean the section of the TSRs containing provisions for safe operation of a facility including (1) requirements for reporting violations of TSRs, (2) staffing requirements important to safe operations, and (3) commitments to the safety management programs and procedures identified in the SARs as necessary elements of the facility safety basis provisions.

AUTHORIZATION AGREEMENT. A mechanism to formally document DOE=s expectations that the contractors must meet while performing work.

AUTHORIZATION BASIS. Those aspects of the nuclear facility design basis and operational requirements relied upon by DOE to authorize operation. These aspects are considered to be important to the safety of facility operations. The authorization basis is described in documents such as the facility SAR and other safety analyses; hazard classification documents, the TSRs, DOE-issued USQ evaluation reports, ISB, criticality USQ evaluation reports, criticality safety specifications, and/or facility-specific commitments made to comply with DOE Orders or policies.

AUTHORIZATION ENVELOPE. A listing of the documentation that identifies the ES&H requirements and controls within which facility operations or activities are authorized.

CHANGE CONTROLS. A process that ensures all changes are properly identified, reviewed, approved, implemented, tested, and documented.

CLASSIFICATION CATEGORIES. The Categories of consequences of unmitigated releases of radioactive and/or hazardous material.

- Category 1 Hazard. The hazard analysis shows the potential for significant offsite consequences.
- Category 2 Hazard. The hazard analysis shows the potential for significant onsite consequences.
- Category 3 Hazard. The hazard analysis shows the potential for only significant localized consequences.

COMPLIANCE. Conducting operations according to regulatory requirements.

CONFORMANCE. Conducting operations according to guidelines set forth in policy, plans, and procedures.

CONTRACTING OFFICER. A Federal Government official who, in accordance with DOE or agency procedures, is designated as a contracting officer with the authority to enter into and administer contracts, financial assistance awards, and sales contracts and make determinations and findings with respect thereto, or any part of such authority. The term also includes the designated representative of the contracting officer acting within the limits of his/her authority.

CONTROLS means, when used with respect to nuclear reactors, apparatus and mechanisms, the manipulation of which directly affects the reactivity or power level of a reactor. When used with respect

to any other facility, Acontrols@ means apparatus and mechanisms, the manipulation of which could affect the chemical, physical, metallurgical, or nuclear process of the facility in such a manner as to affect the protection of the environment or the health and safety of the public and the workers. Administrative Controls mean those provisions relating to organization and management, procedures, recordkeeping, assessment, and reporting necessary to ensure safe operation of a facility.

DEFENSE-IN-DEPTH. (DOE-STD-3009) Defense in depth as an approach to facility safety has extensive precedent in nuclear safety philosophy. This approach builds in layers of defense against release of hazardous materials so that no one layer by itself, no matter how good, is completely relied upon. To compensate for potential human and mechanical failures, defense-in-depth is based on several layers of protection with successive barriers to prevent the release of hazardous material to the environment. This approach includes protection of the barriers to avert damage to the plant and to the barriers themselves. The defense-in-depth philosophy includes:

- Reliable design
- Provisions to safety terminate accidents
- Provisions to mitigate the consequences of accidents.

ENGINEERED CONTROLS. Physical controls including set points and operating limits as distinct from administrative controls.

ENVIRONMENTAL IMPACTS. Any adverse change to the environment, wholly or partially resulting from an organizations activities, products, or services.

EXPECTATIONS. The responsibility and activities that support a Core Function at any one of the ISMS levels (i.e., PHMC Scope, Facility, or Activity).

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS). The part of the ISMS that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental policy.

FACILITY. For purposes of ISMS implementation, a facility includes any physical equipment, structure(s), system(s), process, activities, or logical groupings thereof that fulfills an intended and specific purpose(s). Facilities do not have to be structures. Facilities could be a grouping of buildings and/or systems that are defined to be controlled and operated continually by a Major Subcontractor.

FDH. The PHMC management contractor, Fluor Daniel Hanford, Inc.

FIRE HAZARDS ANALYSIS. The purpose of a fire hazards analysis is to comprehensively assess the risk from fire within individual fire areas in a DOE facility in relation to existing or proposed fire protection.

FUNCTIONAL AREA MANAGER. The Interpretive Authority for ES&H Requirements who has responsibility for configuration control and approval of S/RIDs within their functional area.

GRADED APPROACH. "The level of analysis and documentation for each facility must be commensurate with: (1) the magnitude of the hazards being addressed; (2) the complexity of the facility and/or systems being relied upon to maintain an acceptable level of risk, and (3) the stage or stages of the facility life cycle for which DOE approval is sought." Consistency is important and must be maintained between DOE-RL direction and DOE Orders.

GUIDING PRINCIPLES. Criteria that, when incorporated into PHMC Scope work planning and execution, help ensure that work will be managed and performed in a manner that is protective of the workers, public, and the environment. The relationship between Guiding Principles and Core Functions is depicted in Table 1.

HAZARD. A source of danger (i.e., material, energy source, or operation) with the potential to cause illness, injury, or death to personnel or damage to a facility or to the environment.

IMPLEMENTATION PLAN. A document prepared by a contractor that sets forth: (1) when and how the actions appropriate to comply with DOE or other regulatory requirements, including the requirements of a plan or program committed to by the contractor, shall be taken and (2) what relief will be sought if a contractor cannot attain full compliance with a requirement in a reasonable manner.

INTEGRATED ENVIRONMENTAL, SAFETY AND HEALTH MANAGEMENT SYSTEM (ISMS). The system used to integrate ES&H requirements and considerations into work planning and execution at all levels so that Project Hanford missions are accomplished while protecting the worker, the public, and the environment.

ISMS PLAN. The document approach to integrate ISMS Expectations into all aspects of work planning and execution.

ISMS IMPLEMENTATION PLAN. The plan and schedule describing actions to be taken to achieve the ISMS Expectations to complete verification of ISMS Implementation.

INTEGRATION. To determine the interactions between the diverse functional and organizational aspects of site activities, and to unify as a whole by incorporating those interactions into planning, decisionmaking, and execution. A natural outgrowth from the application of quality management and planning activities. Per the PHMC, integration is defined as "determining all the interactions between the diverse functional and organizational aspects of site activities, and unifying as a whole by incorporating those interactions into planning, decisionmaking, and execution".

JOB HAZARD ANALYSIS. The process used to systematically analyze a defined scope of work to identify potential hazards and environmental impacts and to specify the control mechanisms necessary to mitigate the hazard.

LIFE CYCLE. The life of an asset from planning through acquisition, maintenance, operation, and disposition.

LINE MANAGEMENT. Any management level within the line organization, including contractor management, that is responsible and accountable for directing and conducting work.

LOWER-TIERED SUBCONTRACTORS. Hanford Site subcontractors that are contracted to the Major Subcontractors to conduct a specific scope of work. This classification includes the Enterprise Companies.

MAJOR SUBCONTRACTORS. Subcontractors under direct contract to FDH. These Major Subcontractors include: B&W Hanford Company, Lockheed Martin Hanford Corporation, Waste Management Federal Services of Hanford, Inc., Numatec Hanford Corporation, and for purposes of the ISMS Plan: DynCorp Tri-Cities Services, Inc.

NON-NUCLEAR SAFETY. Those aspects of safety that encompass natural phenomena hazards, environmental protection, radiation safety, occupational safety and health; those aspects of public health

and safety that deal with epidemiology and radiological protection; and all activities, systems, or processes that have the potential to damage the environment or affect the health and safety of the public and the workers.

NUCLEAR SAFETY. Aspects of facility siting, design, construction, modification, operation, and maintenance that prevent or mitigate the harmful consequences of accidents involving radioactive and fissionable material to the public, the workers or the environment.

OCCURRENCE REPORT. A documented evaluation of an event or condition that is prepared in sufficient detail to enable the reader to assess its significance, consequences, or implications and to evaluate the actions being proposed or employed to correct the condition or to avoid recurrence.

OPERATIONAL READINESS REVIEW. A structured method for determining that a project, process, or facility is ready to operate and occupy and includes, as a minimum, the review of hardware, personnel, and procedures.

OPERATIONAL SAFETY CONTROLS Safety limits, operating limits, surveillance requirements, safety boundaries, and management and administrative controls that significantly contribute to protecting workers, the public, and the environment from hazards other than nuclear detonation, high-explosive detonation and deflagration, and fire (which are addressed by Nuclear Explosive Safety Rules) for specific nuclear explosive operations and associated activities.

OTHER HANFORD CONTRACTORS. DOE-RL contractors that are not part of the PHMC Team.

OUT-YEAR. Beyond the current and coming year.

OVERSIGHT. Refers to the responsibility and authority assigned to the Assistant Secretary for Environment, Safety and Health to independently assess the adequacy of DOE and contractor performance. Oversight is separate and distinct from line management activities.

PERFORMANCE AGREEMENTS. Agreements that delineate expectations and measures for the performance of work.

PERFORMANCE INDICATOR. Operational information that is indicative of the performance or condition of a facility, group of facilities, or site.

PHMC. Project Hanford Management Contract, DE-AC06-96RL13200.

PHMC SCOPE. All efforts under the direct control of FDH as set forth in the PHMC, DE-AC06-96RL13200.

PHMC TEAM. FDH and its Major Subcontractors.

PROCEDURE. A document that prescribes a process (a sequence of actions) to be performed to achieve a desired outcome.

QUALIFICATION. The generation and maintenance of evidence to ensure that equipment will operate on demand to meet the system performance requirements.

REQUIREMENTS BASIS. The spectrum of requirements applicable to a facility. ISMS defines the ES&H requirements basis as S/RIDs for nuclear facilities and Part III, Section J, Appendix C of the PHMC for facilities without approved S/RIDs.

RISK. The quantitative or qualitative expression of possible loss that considers both the probability that a hazard will cause harm and the consequences of that event.

RISK-INFORMED. Using knowledge of the risk.

SAFETY. Used synonymously with "environment, safety, and health" (ES&H) to encompass protection of the public, the workers, and the environment. Thus, the term "safety" includes the various ES&H disciplines (e.g., environmental protection, waste minimization, pollution prevention, cultural and historic resources, fire protection, industrial hygiene, industrial safety, nuclear safety, and radiological control).

SAFETY ANALYSIS. A documented process:

(1) to provide systematic identification of hazards within a given DOE operation.
(2) to describe and analyze the adequacy of the measures taken to eliminate, control, or mitigate identified hazards
(3) to analyze and evaluate potential accidents and their associated risks.

SAFETY ANALYSIS REPORT (SAR). A report that documents the safety analysis for a nuclear facility to provide the basis for a determination that the facility can be constructed, operated, maintained, shut down, and decommissioned safely and in compliance with applicable laws and regulations.

SAFETY AND ENVIRONMENTAL OBJECTIVES. Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the safety and environmental goals and that needs to be set and met to achieve those goals.

SAFETY AND ENVIRONMENTAL GOALS. Overall safety and environmental goals arising from the ES&H policy, and that is quantified where practicable.

SAFETY CULTURE. That assembly of characteristics and attitude in an organization and individuals that establishes, as an overriding priority, safety issues receive the attention warranted by their significance.

SAFETY EVALUATION REPORT (SER). A DOE document that describes the extent and detail of a SAR review, the bases for SAR approval, and any conditions of SAR approval. SER approval signifies that DOE has accepted the SAR as appropriately documenting the safety basis of a facility and serves as the basis for operational controls necessary to maintain an acceptable operating safety envelope. (Definition developed from DOE-STD-1104, "Review and Approval of Non-reactor Nuclear Facility Safety Analysis Reports")

SITE, ACROSS THE SITE, CROSSCUTTING. Synonymous with `Hanford'. Use of these terms shows FDH's involvement in Hanford Site activities to the extent authorized by the PHMC.

S/RID. Contains the ES&H requirements to be implemented for a facility or activity. These requirements are appropriate to the life cycle phase to achieve an adequate level of protection for worker and public health and safety, and the environment during design, construction, operation, decontamination and decommissioning, and environmental restoration. The S/RIDs are living documents, to be revised appropriately based on change in the site's for facility's mission or configuration, a change in the facility's life cycle phase, or a change to the applicable. S/RIDs encompass health and safety, environmental, and safety-related safeguards and security standards and requirements for the functional areas listed in the U.S. Department of Energy Environmental, Safety and Health Configuration Guide. When approved by DOE-RL, the S/RID becomes part of the contract document between DOE-RL and FDH.

STANDARD. A generic, all-encompassing term used to describe documents that provide a specified set of mandatory or discretionary rules, requirements, or conditions concerned with performance, design, operation, or measurements of quality to accomplish a specific task. Standards could include federal laws, regulations, state laws, federal agency directives, national and internal technical standards, codes of conduct, or even organizational "internal use only" documents.

SURVEILLANCE. Any periodic monitoring to ensure operability or for performance adequacy.

TAILORING. Adapting something such as the ISMS to suit the need or purposes.

TECHNICAL SAFETY REQUIREMENTS (TSRs). TSR's shall define the operating limits and surveillance requirements, the basis thereof, safety boundaries, and management or administrative controls necessary to protect the health and safety of the public and to minimize the potential risk to workers from the uncontrolled release of radioactive or other hazardous materials and from radiation exposure due to inadvertent criticality.

TRI-PARTY AGREEMENT. Hanford Federal Facility Agreement and Consent Order, includes work priorities and schedules to which DOE-RL has committed.

UNREVIEWED SAFETY QUESTION (USQ). An USQ exists if one or more of the following conditions is identified: (1) the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the facility safety analyses could be increased; (2) the possibility for an accident or malfunction of a different type than any evaluated previously in the facility safety analyses could be created; and, (3) any margin of safety as defined in the bases of the Technical Safety Requirements could be reduced.

WORK. Process of performing a defined task or activity, for example, research and development, operations, maintenance and repair, administration, software development and use, inspection, safeguards and security, data collection, and analysis.

WORK MANAGEMENT TEAMS. Working teams of individuals with the necessary expertise to correctly analyze potential hazards and support effective work planning. (NOTE: Work management team formation does not promote nor discourage organizational alignment changes to support hazard analysis and work planning. Facility management and union leadership will work together to resolve jurisdictional issues associated with team membership while ensuring each team member adds value to the process.)

WORK PLANNING. The process of planning a defined task or activity.

REFERENCES:

DOE/RL-96-92, *Hanford Strategic Plan*, U.S. Department of Energy, Richland, Washington

DNFSB, Recommendation 95-2, *Safety Management*, Defense Nuclear Facility Safety Board, Washington, D.C.

ISO 14001, International Organization for Standardization, Environmental Management System, Geneva, Switzerland

FDH 9757818, *Radiological Control Improvement Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

DOE-RL ES&H Policy, U.S. Department of Energy, Richland, Washington

DOE P 450.4, *Safety Management System Policy*, U.S. Department of Energy, Washington, D.C.

Responsible Care®, Chemical Manufacturer's Association, Arlington, Virginia

Enhanced Work Planning, (DOE-EH Sponsored Initiative), U.S. Department of Energy, Washington, D.C.

HNF-MP-001, *Management and Integration Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

DNFSB/Tech-16, *Integrated Safety Management*, Defense Nuclear Facility Safety Board, Washington, D.C.

HNF-MP-005, *Risk Management Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

HNF-MP-013, *Configuration Management Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

National Environmental Policy Act (NEPA) of 1969, Federal Register, Washington, D.C.

HNF-MP-015, *Requirements Management Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

DNFSB/Tech-15, *Operational Formality for Department of Energy Nuclear Facilities and Activities*, Defense Nuclear Facility Safety Board, Washington, D.C.

HNF-MP-011, *FDH Qualification and Training Plan*, Fluor Daniel Hanford, Inc., Richland, Washington

Hanford Occupational Health Process, Fluor Daniel Hanford, Inc., Richland, Washington

DOE Order 5480.20A, *Personnel Selection, Qualifications, and Training Requirements for DOE Nuclear Facilities*, U.S. Department of Energy, Washington, D.C.

29 *Code of Federal Regulations*, Part 1910, "Occupational Safety and Health Standards," Federal Register, Washington, D.C.

29 *Code of Federal Regulations*, Part 1926, "Construction," Federal Register, Washington, D.C.

10 *Code of Federal Regulations*, Part 835, "Occupational Radiation Protection," Federal Register, Washington, D.C.

10 *Code of Federal Regulations*, Part 830, "Nuclear Safety Management," Federal Register, Washington, D.C.

DOE Order 5480.8A, *Contractor Occupational Medical Program*, U.S. Department of Energy, Washington, D.C.

Americans With Disabilities Act, Federal Register, Washington, D.C.

Memorandum of Agreement Between Fluor Daniel Hanford, Inc. and Hanford Environmental Health Foundation, Fluor Daniel Hanford, Inc., Richland, Washington

DOE Order 5480.31, *Startup and Restart of Nuclear Facilities*, U.S. Department of Energy, Washington, D. C.

DOE-RL Implementing Directive 5480.31, *Startup and Restart of Nuclear Facilities*, U.S. Department of Energy, Richland, Washington

Environmental, Safety, and Health, and Quality Performance Indicator Plan, Fluor Daniel Hanford, Inc., Richland, Washington

HNF-MP-599, *FDH Quality Assurance Program*, Fluor Daniel Hanford, Inc., Richland, Washington

HNF-PRO-210, *Records Management Program*, Fluor Daniel Hanford, Inc., Richland, Washington

HNF-PRO-244, *Engineering Data Transmittal Requirements*, Fluor Daniel Hanford, Inc., Richland, Washington

DOE-DP Standard, *Integrated Safety Management System Verification Process (Draft)*, U.S. Department of Energy, Washington, D.C.

ACRONYMS:

AA	Authorization Agreement
ADA	Americans with Disabilities Act
AJAH	Automated Job Hazard Analysis
ASA	Auditable Safety Analysis
CFR	Code of Federal Regulations
CMA	Chemical Manufacturers Association
CMO	Corporate Medical Officer
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy's
DOE-RL	U.S. Department of Energy, Richland Operations Office
EAL	Emergency Action Levels
EJTA	Employee Job Task Analysis
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
ES&H	Environmental, Safety and Health
ESH&Q	Environmental, Safety Health and Quality
EWP	Enhanced Work Planning
FDH	Fluor Daniel Hanford, Inc.
FSAR	Final Safety Analysis Report
HEHF	Hanford Environmental Health Foundation
HOHP	Hanford Occupational Health Process
IH	Industrial Hygiene
ISMS	Integrated Environmental, Safety and Health Management System
ISO	International Organization for Standardization
JHA	Job Hazard Analysis
JSA	Job Safety Analysis
M&I	Management and Integration
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSC	Major Subcontractor
MYWP	Multi-Year Work Plan
OMC	Occupational Medical Contractor
ORPS	Occurrence Reporting and Processing System
OSHA	Occupational Safety and Health Administration
OSR	Operational Safety Requirement
P&P	Policies and Procedures
PAD	Project Authorization Directives
PHMC	Project Hanford Management Contract
PHMS	Project Hanford Management System
PHP&P	Project Hanford Policies and Procedures
PI Plan	Environmental, Safety, and Health, and Quality Performance Indicator Plan
QA	Quality Assurance
RC[7]	Responsible Care[7]
S/RID	Standards/Requirements Identification Document~~ation~~
SAR	Safety Analysis Report
SARA	Superfund Amendments and Reauthorization Act of 1986
SOMC	Site Occupational Medical Contractor
SOW	Statement of Work
TSR	Technical Safety Requirements

USQ	Unreviewed Safety Question
VPP	Voluntary Protection Program
WBS	Work Breakdown Structure